

## CLAIMS

I claim:

- 5 1. A system for supplying power to a powered device which is adapted to receive power  
selectably from a battery and a configurable power supply, comprising:  
    means for acquiring information about power requirements of said powered device;  
    means for analyzing the acquired information;  
    means for determining the power requirements of the powered device based on the  
10 acquired information; and  
    means for adapting said configurable power supply to supply power to said powered  
device according to the determined power requirements of the powered device.
- 15 2. The system as claimed in Claim 1, comprising means for storing the contents of a look-up  
table, and wherein said means for determining the power requirements of the powered device  
comprises means for comparing said acquired information with entries in said look-up table.
3. A system for determining the type of a powered device, comprising:  
    means for analyzing the dynamic load characteristics of a powered device upon power up  
20 of the powered device; and  
    means for comparing the analyzed dynamic load characteristics with templates of dynamic  
load characteristics of known powered devices.
4. The system as claimed in Claim 3, wherein said types of known powered devices include  
25 battery powered telephones and battery powered computers.
5. The system as claimed in Claim 3, wherein said powered device is adapted to receive power  
selectably from a battery and a configurable power supply, said system further comprising:  
    means for acquiring information about power requirements of the determined powered  
30 device;  
    means for analyzing the acquired information, and determining the power requirements of  
the powered device based on the acquired information; and

means for supplying power to said powered device according to the determined power requirements.

6. A system for selecting and applying a proper operating voltage for a powered device,

5 comprising:

means for sampling battery voltage of a battery associated with said powered device;

means for providing a reference voltage;

means for comparing said sampled battery voltage and said reference voltage;

means for adjusting said reference voltage and selecting a value of said reference voltage

10 that most closely matches said sampled battery voltage; and

means for powering said powered device from a power source having an output voltage equal to said selected value of said reference voltage in the absence of a battery connected to said powered device.

15 7. The system as claimed in Claim 6, comprising:

means for providing a visual indication signifying that said sampled battery voltage and said adjusted reference voltage are most closely matched.

8. The system as claimed in Claim 7, comprising:

20 means for choosing the next higher value of reference voltage when said sampled battery voltage is in between two values of reference voltages, one value being below said sampled battery voltage and one value being above said sampled battery voltage.

9. The system as claimed in Claim 6, comprising:

25 means for protecting said power source from being inadvertently connected to said battery.

10. A system for determining the power requirements of a powered device adapted to receive power selectably from a battery and a configurable power supply, comprising:

means for preloading said battery with a resistive load;

30 means for varying said resistive load on said battery;

means for detecting the extent of voltage sag upon preloading said battery;

means for analyzing said detected voltage sag and determining the anticipated fully charged battery voltage; and  
means for supplying the appropriate voltage to the powered device from said configurable power supply in the absence of said battery.

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